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The Students of Worcester Polytechnic Institute

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TECH NEWS

VOL. 21

WORCESTER, MASS., DEC. 17, 1929

NO. 11

DR. HOCKING IS SPEAKER AT TECH



Dr. William Ernest Hocking, Alford Professor of Philosophy at Harvard university, and lecturer at the Naval War College at Newport and Princeton, presented the third Fuller lecture of the season. The subject of Dr. Hocking's lecture was "Engineering Morale and Esprit de Corps," which President Earle introduced with comments on the morale of Commander Byrd's expedition.

"I cannot stand here without taking a little dip into my memory at the time when I made the preliminary plunge in the engineering profession; as a boy, I went into the mechanical department of the Elgin, Toledo and Eastern Railroad which was being built around Chicago, and in this way I had a little bit of a taste of what engineering is like. I have never gotten over

(Continued on Page 3, Col. 1)

A. S. M. E. SOCIETY HOLDS ITS REGULAR MEETING

Luoma, Davis and Wright Speak

A meeting of the student branch of the American Society of Mechanical Engineers was held December 10 at seven P. M. in the M. E. Lecture room. Talks were given by Herbert W. Davis, Aarne A. Luoma and Charles L. Wright, president of the society.

Mr. Luoma, who was with the Baldwin Locomotive Co. during the past summer, spoke on the developments in locomotive building, describing new features and improvements. Having been connected with the drafting department of the company, Mr. Luoma was in immediate contact with the latest locomotive plans.

Mr. Davis, who worked as a salesman of the H. F. Davis Tractor Co. of Holyoke and Worcester, described the design of tractors with the aid of a film on the subject.

Charles L. Wright, who was the Institute representative at the annual meeting of the A. S. M. E., in New York city, Dec. 2-5, gave a report of the convention.

Coffee and doughnuts were served at the close of the meeting.

The next meeting of the society is announced for January 7 for which date a film on the installation of commercial oil burners has been secured to illustrate a lecture on the subject by an expert.

INTERCLASS SWIMMING MEET WILL BE HELD

Keen Competition Is Expected

As a forerunner of the college varsity swimming season, an interclass meet has been arranged. This meet is to be held on Thursday and Friday, December 20 and 21. The officials are to be members of the faculty especially interested in this sport.

Captains of the class teams have been or will be elected by the respective class teams. These captains are to submit an entry list to W. J. Newbold, manager of swimming, or to Frank Grant, swimming coach, before five o'clock on Wednesday afternoon.

All the classes seem to be fairly well represented by swimmers, especially the Junior and Sophomore classes. If all four classes enter or if three enter and each starts more than two men to an event, it will be necessary to hold the meet two days. The Junior class is represented by "Joe" Rogers, "Ray" Holcombe, P. Fitz and K. H. Perry. The Sophomore class will have the services of John Osipowich, John Tinker, G. Emerson, R. G. Driscoll, E. D. Jones and L. H. Peters. The senior representatives are "Joe" Tawter and Carl Larson. Little is known about the material of the Freshman class, but no doubt it will uncover some men who will give the upperclassmen a swim for their money.

DR. SHERWOOD SPEAKS AT CHEM. CONVENTION

Meeting Held In North Carolina

Dr. Thomas K. Sherwood of the Chemistry Department, representing Worcester Polytechnic Institute, was one of the principal speakers on the "Paper and Pulp" symposium at the twenty-second annual meeting of the American Institute of Chemical Engineers, held recently in Asheville, North Carolina. Professor Sherwood spoke before a large gathering of scientists and chemical engineers, representing universities and chemical industries from all over the country. Some of the more widely known men who were present include Dr. Reese and Dr. Zeisberg of the Du Pont Corporation; Mr. C. C. Heritage, Director of Research, of the Oxford Paper Co.; Dr. H. E. Howe, Editor of "Industrial and Engineering Chemistry"; Professors A. H. White and W. L. Badger of the Chemical Engineering Dept. of the University of Michigan; Dr. D. B. Keyes of the University of Illinois; Dr. H. C. Parmelee and S. D. Kilpatrick, editors of "Chemical and Metallurgical Engineering," and Professor H. A. Curtis of Yale.

The subject of Dr. Sherwood's address was "The Drying of Pulp and Paper." He spoke mainly on the mechanism of the drying of paper. In the course of his researches in this field, Dr. Sherwood has found that the drying process is divisible into two distinct steps or periods: 1. The constant rate period, when the moisture film completely covers and wets the surface of the paper, and 2. The falling rate region, which is itself divisible into two zones:

(Continued on Page 4, Col. 1)

FRESHMEN TAKE TROPHY FOR SKIT

Carnival Draws Crowd In Spite Of Storm

"Friday the thirteenth" held no terrors for the promoters of this year's Tech Carnival. Although the day dawned wet and slippery and became even wetter and more slippery at eventide, Tech students and their friends were undaunted and crowded the Alumni Gym nearly to overflowing at 7.45 when the Glee Club opened the program with "A Song of Fellowship."

The Freshmen easily carried off the cup presented by the college "Y" with their act demonstrating the details of their new television instrument which might even have deserved the "Yankee Ingenuity" scholarship. The promoters evidently believed in the policies of the present-day tabloids in selecting bits of scandal connected with the lives of certain well-known faculty members for caricature. The use of figures silhouetted against a screen was a novel and well-received manner of presentation.

The interlude between acts was filled with selections by the Banjo-Mandolin club, and then the Sophomore team presented an episode in their life as "Rambling Wrecks from Worcester Tech." The scene revolved around a more or less dilapidated Ford which had been inveigled onto the stage by some means or other, and which seemed to be the direct excuse for the actors to present their ideas concerning their life. The scene ended with a rendition of that old song, "Rambling Wrecks from Worcester Tech," in a more or

(Continued on Page 2, Col. 3)

CALENDAR

TUESDAY, DEC. 17—

9.50 A. M.—Chapel Service.

WEDNESDAY, DEC. 18—

9.50 A. M.—Chapel Service.

4.30 P. M.—Interfraternity Relay Races:

P. S. K. vs. T. C.

T. U. O. vs. A. T. O.

S. A. E. vs. P. G. D.

L. C. A. vs. S. O. P.

THURSDAY, DEC. 19—

9.50 A. M.—Chapel Service.

4.30 P. M.—Interclass Swimming Meet.

Last day to register for make-up exams.

FRIDAY, DEC. 20—

9.50 A. M.—Chapel Service.

4.30 P. M.—Interclass Swimming meet.

4.30 P. M.—Interfraternity Relay Race:

L. C. A. vs. T. C.

7.15 P. M.—Basketball — Tech Seconds.

8.15 P. M.—Varsity Basketball. Tech vs. Brown.

SATURDAY, DEC. 21—

Last classes before Christmas Recess.

MONDAY, DEC. 23 to THURSDAY, JAN. 2—

Christmas Recess.

THURSDAY, Jan. 2—

Make-up Examinations.

UNDERHILL CHOSEN 1930 GRIDIRON CAPT.

Walker 1930 Captain of Soccer

Last week's assembly was the first general gathering following the close of the fall sports season and so was the scene of numerous awards and announcements of next year's captains of football and soccer.

O. R. Underhill and C. B. Walker were chosen by the lettermen as captains of the football and soccer teams, respectively, for the 1930 season.

Besides the sport awards, a group of seven students were pledged to Tau Beta Pi which is an honor fraternity, comparable to Phi Beta Kappa in liberal arts colleges. The new members are: Stanley H. Fillion, Aarne A. Luoma, Daniel F. O'Grady, Joseph Tawter, Warren C. Whittum, Almon F. Townsend and Kenneth H. Perry.

President Ralph Earle announced the results of the Red Cross drive as a considerable improvement over last year. The collections this year amounted to \$262 as compared with \$101 last year.

MEETING IS HELD BY INTRAMURAL COUNCIL

Interfraternity Dance Discussed

At the Interfraternity Council meeting held last week, several things of general interest and importance were reported on and discussed.

It was decided that there would be a hands-off period of ten days during the last of February and the first of March during which there should be no rushing of first year men by the fraternities.

A report was given on the Interfraternity dance which is always the most brilliant social event of the interfraternity calendar, and it promises not only to live up to this standard this year but to be even more successful than usual. The subscription is \$3, as usual, and the dance will be held at the Hotel Bancroft with music by the most popular dance orchestra in this vicinity, Hughie Connors and his Bancroft Hotel orchestra. The committee in charge of the dance has felt that because this is one of the few dances held which does not give favors, it would be no more than right that better dance orders should be given, so a most attractive program card has been arranged by the committee under the leadership of Charles Cole, '30. The dance will probably consist of sixteen regular dances and four extras and will last from nine until two o'clock.

REGULAR MEETING OF TECH NEWS IS HELD

Constitution Is Amended Again

A meeting of the TECH NEWS Association was held last Tuesday at 4.00 p. m. in the news office in Boynton Hall.

The main business of this meeting was to elect an Athletic Editor to fill the vacancy caused by the withdrawal of Clifford Ives from the Institute.

(Continued on Page 4, Col. 1)

TECH'S DEBUT IS VICTORIOUS

Basketball Team Defeats Whitin Community Five

The Tech hoopsters were victorious, 27-23, in a hard-fought practice game with the Whitin Community five at Whitinsville, Saturday night. Both teams played a defensive game until the last quarter, when the home team made a futile attempt to take the lead. Toward the end of the first quarter the Engineers lost the lead only to take it again when Rollo Downing, elusive Tech forward, made two suc-

(Continued on Page 4, Col. 5)

ANOTHER TRIP TO MUSEUM IS PLANNED

Prof. Howe Will Conduct Tour

The second of a series of museum tours which are being held under the guidance of Prof. Jerome W. Howe is to be held Thursday, December 19, at 4.10 p. m. This tour will consist of a visit to the Worcester Historical Society Museum which is particularly rich in its collection of relics of the earlier settlements in this vicinity including Indian implements, early American inventions and tools used in industries. All Tech students who are interested should make it a point to attend and derive the cultural benefits afforded.

PRES. EARLE SPEAKS BEFORE NEWMAN CLUB

Plans For Annual Dance Made

Last Tuesday at seven p. m. the Newman Club held a meeting in the Commons room of Sanford Riley Hall. The speaker for the evening was President Ralph Earle who gave a talk on disarmament. This topic of worldwide consideration was made very interesting to all those present by the speaker, who had gained much of his information from actual contact with this subject and by work pertaining to it. There was a very large number present to hear this interesting talk and it is only regretted that more could not have benefited by it.

At this meeting the consideration of initiating new members was brought up and after a lively discussion President D. F. O'Grady appointed a committee to further look into the matter.

The date for the annual Newman Club dance has been set for March third at the Hotel Bancroft. The music will be furnished by the ever popular Hughie Connors and his Bancroft orchestra.

There are a few more copies of the recent "Tech Evening Gazer" on sale at a cost of ten cents each. These may be secured from F. Curtis Tucker, Circulation Manager of the TECH NEWS, by dropping a note to that effect in his box in Boynton Hall. They may also be obtained at the Gymnasium during the basketball game on Friday night.

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December 17, 1929

THE FRESHMEN SKIT

The Freshmen are to be congratulated on the quality of their skit at the Carnival of last Friday night. The bringing forth of such a product is certainly the result of a good measure of native "Yankee Ingenuity," and the manner of presentation was of such an order as to occasion much favorable comment by the spectators. Although the actual text included one or two rather reprehensible allusions to various faculty activities, they were taken in the right spirit, as indeed must all such "cracks" made by the student body.

However, be that as it may, the act was well done, and represented much time and thought on the part of those who were responsible. May the class of '33 enter into all their future activities with the same ability and spirit.

HOW ENGINEERS VIEW LIFE

In order to find out the attitude of engineers toward certain important questions of the day, Dr. C. E. Warne, Professor of Economics at the University of Pittsburgh, questioned a group of engineers from the Westinghouse Electric and Manufacturing Company on the subjects of "Distribution of Wealth," "Labor Problems," "Buying and Selling," "Politics," "Woman and Her Problems," "Ethics and Religion," and "One's Own Occupation."

Since this study is based upon the replies of a comparatively few men, the following summary cannot be claimed to be the attitude of a typical American engineer, but it does show some of the major trends in his way of thinking.

Since people in general are struggling for a larger income, it is better to join in with them, rather than envy those who have already acquired wealth. A man deserves to be paid interest or dividends on the money he has saved. By freely spending the wealth they have accumulated, the rich create more positions for the worker. Poverty is usually the result of inefficiency, and the charity of the wealthy for the poor is the result of kindness, not a desire to attempt to escape a revolutionary struggle. A redistribution of wealth would result in the wealthy regaining their original fortunes because of their greater ability and efficiency.

Both employer and employee are hindered by the interference of trade unions. Although wage systems are necessary, they seldom pay a person exactly what he deserves. American workers do not control American wealth, but this situation could be remedied somewhat by a heavier tax on large incomes and inheritances. Government control boards are not advisable at present.

Wages are not high enough to absorb the produce of mass production. To remedy this the capitalists should spend their income more freely. It is doubtful whether installment buying is good or bad, but it is certain that advertising has not made prices lower. Protective tariffs are helpful, but prices are fixed less by competition than monopolistic control.

The present American government is on the whole adequate to meet the strains of modern industrialism and should not be experimented with. One should stand up for America rather than any political party. America should protect herself against possible invasion; hence military training for youths is to be encouraged. However, there is a limit to preparedness. The protection of private interests abroad by the marines is a doubtful practice.

In general, free speech is desirable, but labor agitators and others who preach doctrines likely to undermine the foundations of our country should not be granted this privilege. If foreign countries do not develop their resources, America is doing a world service by doing it for them.

Attendance at church and Sunday schools is to be recommended. The Sabbath was probably intended by God to be a day of rest. Conscience is ordinarily the product of one's past experience rather than a God-given instinct.

Machinery appears to have been of great benefit, but it is doubtful if it has brought any increase in human happiness. The five day week and the six hour day seem practicable. Education is necessary and the universities are doing their part satisfactorily. Changes in all fields must be expected. An international language seems desirable. Stock brokers and speculators who get incomes without rendering any service are still a problem. Nevertheless, production is mounting so let us keep a healthy optimism.

The Tech News extends the Season's Greetings
to its friends

Participants In Faculty Carnival Act



At this point the audience suddenly became aware of a great commotion behind the scenes in which could be heard the agonized voices of several well-known professors protesting against appearing in public. Suddenly the dishevelled form of Prof. Howe, the manager, appeared, and he announced the motif for the Faculty skit. This revolved around the recently inaugurated summer school sessions for engineering professors which are held at various colleges. Prof. Maxfield took his place as "Professor to the Professors," and as the class gathered representing famous teachers and educators from all corners of the earth, several W. P. I. faculty members could be recognized in the crowd. Each presented and discussed in turn his own pet theories as to the best methods of teaching engineering students. As is the usual case with the Faculty act, it "brought down the house."

The next event scheduled on the program provoked much conjecturing among the spectators, for it had the mysterious title "??-s-sh! Special!" The editor of the TECH NEWS appeared to satisfy this curiosity by announcing the offering of a special issue of the NEWS masquerading under the name of the "Tech Evening Gasjet." A corps of newsboys appeared and practically sold out the edition.

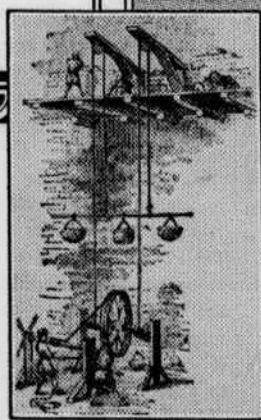
Ralph Hodgkinson, chairman of the Carnival committee, appeared as spokesman for the judges, awarding the Y. M. C. A. cup, and stated that

FRESHMEN WIN "Y" CUP

(Continued from Page 1, Col. 3)

less unsynchronized version by the piano and quartet.

The Glee Club again entertained with two numbers, ending with the ever-favorite song, "The Good Ship Rob-doe."



Reproduction of an old wood-cut showing one of the early phases of Vertical Transportation



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DR. HOCKING'S SPEECH

(Continued from Page 1, Col. 1)

it and I do not want to. Thus, in a way, I think engineering is the most adventuresome side of our western life. It makes the great difference between the Orient and the Occident in more than one respect. Anyone who travels in China or Japan realizes that engineering is the outstanding traditional difference between our two civilizations. I can back up President Earle in his association with the Navy by saying that the importance of morale enters not only in engineering but every group of activity. I thought I would like to speak to you about the morale of group action. Every man belongs to a series of groups. No man but what belongs to a half-dozen, and in everyone you will find morale. It is an intangible thing we all feel. It has made a great deal of difference in the practice of all professions. In the military field morale became recognized in the 19th century. Napoleon was the first one to pick out its importance when he said: 'In war, the morale is to the physical as three to one.' In industry the same thing has been found. The point is, if you are dealing with men you must have a good deal of initiative and enterprise to have success. I am going to speak to you this morning largely as future managers of men. What I have to say will apply equally to your relations as members of groups.

"I assume that you as engineers are going to be leaders and have groups to guide and control. The meaning of morale comes very close to the meaning of that word, 'margin.' When students at Harvard leave the college and get into the law school, there is a difference in their morale. The student in the law school does work when he doesn't have to. Out of hours you will see them working in their clubs, putting in their seminar, say in international law, beginning at eight o'clock in the evening, and working until one o'clock at night, on their cases in international law chiefly with Professor Manley Hudson. It means they were doing their work with a margin of interest.

"In citizenship groups, way back in 1918-19 when this country was suffering with influenza in certain parts of the country, particularly in the West, municipalities sent out orders for the wearing of gauze over the face. A Dutch inhabitant of California said it could not be done in Holland as there is a feeling in this country, he said, different from that in Holland—a respect for and a co-operation with the state—and that you can do things like this with a margin when you have morale, which you cannot do if you do not have morale. It is a condition of the will. It means working power; it means staying power; it means resisting power, to throw off all these effects of discouragement, criticism, of fear and anxiety of complaint by the people around you, and the ability to come back, when you have had a setback.

"The thing I can best talk about is what makes morale. What contributes to morale. The first thing and chief ingredient in morale is belief in the job you are doing at the time. It is a belief that it is worth doing and that it is worth putting your best work into; that is, you are doing your job as if it were important. Importance is a matter of degree, the highest degree you should signify as a matter of life and death. And we assume thereby that these are the most im-

portant things we have to deal with. We have seen men doing things as though they were matters of life and death which are not at all. Another condition of success, and an example is athletic contests, the results of which we have seen today, (the awarding of sweaters and certificates), is treating a game as if it were a matter of life and death. That is the quality of human nature, that it is able to treat many things as though they were a matter of life and death. You can work on the solving of an engineering problem as if it were a matter of life and death.

"The commercial advertisements of the American Telephone & Telegraph Company of late have been showing the way in which their men throughout act in times of stress. If their advertisements tell the truth, it means their men have a certain interest in keeping their lines in order from the standpoint of life and death. Nobody can make a foolish job seem important, but there is many a man who is skillful enough to make an important job seem foolish. And that means too, that there is a great element of psychology in the building of morale and keeping of your own morale. Psychology means dealing with the effects of human nature, and psychology is a new name for tact. That is practical psychology. There is much written under the pretense of scientific which is nothing after all but exercises in tact. If you have a group of men under your control, with a long continued job to do, you recognize first that there is a strong element of human nature involved. The great problem of morale consists in tiding men over their first period of disillusionment and preventing weariness. Men will take an interest in a new job, but the trouble is that they do not hold it. Now why is it that they do not hold out but become tired of the job? It is a universal experience with everyone at some time or other. The question is why did I go into this or why didn't I do something better? Co-operation is a great word but it is a most difficult human enterprise. The more closely you try to co-operate, the more chances there are for friction. There is no enterprise that throws men together that does not develop little enmities and friction, more so when men are on shipboard, as Captain Earle can tell you, such as on long cruises or on Commander Byrd's expedition. It is very seldom men will come through an enterprise of that kind without wanting to get away from each other. They frequently despise each other and hate each other. The difficulty of keeping up original faith and enthusiasm in your surroundings. It takes a man like Commander Byrd to keep it up. Every job is drudgery, every job has its drudgery. In teaching it is marking papers; in engineering it is working over a problem many times without results at first. Every job has that element of slaving which we Americans, I say to our credit, want to take upon ourselves. In Great Britain, the tendency is for a man to hand the drudgery over to some subordinate. We

take on the drudgery ourselves so that we know what it is like. I do not believe there is excellence in any profession unless you go through the drudgery so that later when we have occasion to hand it over, we know what it is. There is a time in life, I am not sure you are in it now, but there is a time when a certain low estimate of human motives creeps into men's minds. The attitude is that everyone is out for himself and my job is to look out for myself and the minute you do that you begin to sever connections from the crowd and you lose interest. If that is the correct diagnosis of loss of interest, we can prescribe what in the military life President Earle knows to be the case when desertions take place. If you can tide the boy over that period, he is likely to stay on and make a good man of himself. The same thing will apply in the engineering profession for it is a human universal experience. For the person suffering that way one thing to keep in mind is that your job must satisfy your whole will. The trouble with most jobs is that they are partial, they only occupy a part of human nature and no man is completely content unless his whole will is satisfied. You cannot believe in a job if you do not put your whole will into it and you cannot leave this out.

"The will of power. We have many instances, pugnacity, curiosity, sex, greed; I won't call it greed, let us call it hunger, inquisitive instinct.

"Happiness consists in the satisfaction of the will power to this extent. You need to feel yourself making an addition to the progress of the world, that is something that will last,—to feel yourself contributing to something permanent. Now we can see why the Romans got such tremendous morale into their regiment. The romance of that old aqueduct in northern Germany built after the conquest, the beautiful arches indicating someone worked hard and that they must have felt they were doing something which was going to last. Unlike another's will power, it is a desire to contribute something to the world which is going to be permanent. You have got to give that to gain. If you are doing team work, every man must be given an opportunity to show his talents. If it is an orchestra, a man must be given a chance to play a solo and feel that he is important. No man is content to be an impersonal member in a crowd without ever an attempt to show what he can do. You can appeal to his individual sense of importance.

"In the third place I think one of the things that keeps us interested in any crowd, is something started up in the crowd as a whole. So that if we drop out for a day we have lost something—so that one of the taxes upon the ingenuity of a leader is to keep something going on which is moving on day by day and that people cannot afford to drop out. The first suggestion I make is that you can do a great deal to tide over this

period of loss of interest, you can test your own belief in the job you are doing by your own interest. There is nothing so infectious as interest. There is a certain sentiment of reticence about one's own feelings that is all right. It isn't right to talk about one's own ambitions but once in a while do it to let the men see why you are doing this particular work.

"I remember a very successful ship-building boss during the war. 'I keep my big huskies up with the big idea of the job. I teach them that whenever they put a rivet in they are driving a nail into the coffin of the Kaiser and that keeps them going.' Keep them up against the job and that will help.

"The second point, psychology can teach us, is the need of discipline. It is a queer thing in this human nature of ours that the easy going manager is not the favorite one. The favorite manager, captain or leader, is one who introduces a certain element of the trait of severity. He keeps the joints of his operation going so well that there isn't any lost motion. I think the danger of the young leader is that he puts severity on in the wrong places. He tries to assume a certain stiffness that he doesn't feel. Two or three maxims about the use of severity while pertinent might not be amiss here. Never be easy-going in the sense of overlooking what goes on but never put too much emphasis on a mistake.

"The president of the Detroit Edison Company, Mr. Dow, and he was speaking from experience, said: 'I have learned never to expect more than ninety per cent performance on the part of anyone. What I mean is that my men should have prompt decision, that they (and he was thinking of his engineers at the time) should have this rather than slow and perfect decision and be right more often than they are wrong. If I get ninety per cent of them I am doing well.' He told the tale of a young engineer who had spoiled a job. He had made what Mr. Dow called 'a bad smear.' What he said to him was: 'This is a bad smear, but I don't think a cub engineer is worth very much until he has spoiled about \$5,000 of material and labor. Now you have not reached that point yet, and don't be ambitious to finish it up.'

"Never overdo your criticism and always put it in the right place. The trouble with criticism is that we condemn a man and that is the danger of its use. The thing to do is not to let your criticism come out at a time when other men are around.

"I might add a word in which all military men are schooled. Begin your severity on your body. Get it into

control and get it to obey you. A man's first fear is his body and as he holds himself and carries himself, so will he get his whole grip there.

"The third point, and we are getting out of psychology now, is, have you got a sense of humor? It is a fine thing to see a man with a sense of humor and if one hasn't it—how can we acquire it? The definition, 'a sense of proportion,' is perhaps the best one. You can begin by cherishing a doubt of your own absolute rightness. The beginning of the engineer trained in the hours of absolute accuracy is a sense of having done it right. He has his slide rule, he has checked up with it and possibly used his multiplication table and two or three other things and he knows they are probably all right. He has slept over it and dreamed over it perhaps and there is no use suggesting anything else to him. When a man is in that state of mind, you cannot co-operate with him; you cannot co-operate with an infallible person. The other thing to do is to take it out of him or get rid of him. The man usually does get over this disease. The ability to reverse gear is a factor. There are automobiles which only go forward. If you have anything like humanity in your existence, it is very good to go back and acknowledge you have made a mistake and try another tack. So long as you know you are wrong you are all right.

"I come now to the fourth point. Loyalty is a somewhat mysterious thing. Loyalty is the capacity to identify yourself sincerely with the objects of the group to which you belong. The aims of that group are the same as your own personal aims. It works up, it works throughout, it works down and it works horizontally.

"I have a personal confession to make about these engineering days of mine. I was, I suppose, like most young men where at some time I was very conscious, and confident of my own ability and willing to see other people at a disadvantage or in a disadvantageous light in comparison with my own attainments. There was an older man with whom I worked who used his tract religiously and sometimes looked up the wrong thing. I observed these things and was not careful to hide my criticism of him. He did not like it and the result was that the chief engineer took me aside one day and invited me to see him that evening at home. 'Delighted,' I said. At the appointed time I presented myself

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HOCKEY TEAM IS BEING ORGANIZED

Mr. Higginbottom Agrees To Coach "Collegians"

Although Worcester Tech will have no official hockey team this year, all members of the Institute are eligible to try out for the "Worcester Collegians."

Last year the Collegians played in the Worcester City Hockey League and finished in third place. This year, with one exception, the entire team is back in school and with these veterans as a nucleus around which to build a team the Collegians should be represented by one of the fastest amateur teams in this vicinity. Although the Collegians have a veteran team there are plenty of chances for the newcomers and Freshmen to win positions as two full teams play in every game and the relief men should be as good as the regulars.

Mr. Higginbottom has agreed to look after the interests of the team and help out in coaching again this year as he did last. He is planning to enter the Collegians in the Worcester City Hockey League at the first meeting of the officials which will probably be during Christmas vacation.

DR. SHERWOOD'S TALK

(Continued from Page 1, Col. 2)

(a) That in which the rate of drying decreases because of the decrease in the amount of wetted surface, and (b) that zone in which the rate of internal liquid diffusion controls the rate of drying. It is ordinarily supposed that the greater the current of warm air supplied to the drying paper, the greater will be the rate of drying, but this holds only in period 1 and in part in period 2. However, when zone (b) in period 2 is reached, the rate of drying is not affected materially by external conditions, and no matter how much circulation of dry air is furnished, the paper or pulp will dry no faster than the water from the interior can diffuse to the surface where the drying agents can act on it and carry it off. Data were presented, and curves were shown which revealed the relative importance of the different factors which affected the rate of drying in the various periods and zones.

Some of the data (on the drying of Celotex) used by Professor Sherwood in the preparation of his paper was taken from the thesis of C. R. Sanford, '27, on "The Drying of Solids." Celotex is manufactured and used extensively as an insulating wall board. It is made from "bagasse," a fibrous residue obtained after the extraction of sugar from the stalk of the sugar cane.

TECH NEWS MEETING

(Continued from Page 1, Col. 2) tute. M. L. Price, C. L. Wright and S. H. Fillion were the candidates for this office and the contest was so close that no majority vote was cast for any one candidate. This necessitated the calling of a special meeting next Tuesday at 4.00 p. m. to vote off the deadlock.

An amendment to the constitution was accepted which reduces the number of hours from twenty-five to eighteen which a man is required to work in order to be eligible for the position of assistant business manager. The application of G. T. Barks for a reporter's pin was submitted and accepted. S. Gorka's application for the position of reporter was also submitted and accepted.

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TECH STUDENTS GIVE US A TRY

A. S. C. E. HEARS MR. KENNETH MOSSMAN

Triangulation Survey Is Topic

The student branch of the A. S. C. E. held a meeting last night at 7.30 p. m. in Boynton Hall. The speaker was Mr. Kenneth Mossman, civil engineer of the Worcester City Engineer's office. He described the recent work of triangulation survey of the city of Worcester of which he has had charge. Prof. C. F. Meyer, who attended the convention of the Highway Research Board at Washington, Dec. 12-13, recounted the proceedings at that meeting.

The regular A. S. C. E. has recently made up eight films on various phases of civil engineering accompanied by mimeographed lectures. These are soon to be available to the Institute.

E. E. NOTES

A. H. Burr, W. P. I., '29, is enrolled in the Graduate Student Course of the Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa. Upon completion of this course Mr. Burr is planning to enter the Engineering Department. He is also attending the University of Pittsburgh where he is studying for a master's degree. Mr. Burr was an honor student at Tech and a member of Tau Beta Pi and Sigma Xi, besides being secretary of his class for four years.

Another W. P. I. student, E. A. Phaneuf, '30, is enrolled in the Fifteen Months' Experience Course with Westinghouse. This course acquaints the student with various branches of engineering and gives him a broader outlook. After completing the course, he will return to Tech to finish his Senior year.

Senior electrics and mechanics in the electrical laboratory courses are conducting measurements to determine illumination levels in some of the institution recitation rooms. This work gives them a more practical and much broader view of the problem of lighting. This year is the first time that all Seniors in the two departments have been required to take this course.

Mr. Johnson, of the Lowell Electric Light Cooperation, came to the Institute last week for the purpose of interviewing students about prospective jobs.

Dr. Pierce was in Chicago last week at a meeting of the A. I. E. E., where he read a paper, of which he and Mr. Nichols of the General Electric Co. were co-authors. The subject of the paper was based on work done in Schenectady by Dr. Pierce and Mr. Nichols in 1927.

PHYSICS DEPT NOTE

At the weekly physics colloquium held last Tuesday in the Salisbury laboratories Mr. Willard E. Lawton spoke on "Optical Measurements of Thin Metallic Films." At the meeting this afternoon Dr. Samuel J. Plimpton and Mr. Richard Dow will be the speakers. Dr. Plimpton has for his subject "Methods of Detecting Very Small Electrical Charges," and Mr. Dow will speak on "The Effect of Strong Magnetic Fields on Electrical Conductivity."

Dr. Samuel J. Plimpton has been granted a patent on a method and apparatus for transmitting sound. He has been doing work on radio reception apparatus for some time and

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RIFLE TEAM WINS FIRST MATCH OF SEASON

The rifle team opened its season by a 1205-1029 victory over Trinity. The team is steadily improving and a better season than last year is expected. A two position shoulder to shoulder was held with the Worcester Pistol and Rifle Club and the veteran riflemen were held down to a 39 point victory.

Scores for Trinity match:

H. A. Sorensen	259
E. V. Haskell	245
A. M. Demont	236
W. G. Ritcey	235
S. Q. Chin	230
1205	

Scores for W. P. & R. match:

H. O. Allen	180
A. S. Gawlowicz	179
A. M. Demont	175
D. K. Bragg	164
E. V. Haskell	152
850	
W. P. & R.	889

RING IN HEALTH



LOGAN'S COLLECTIONS ARE MUSEUM DISPLAY

Mr. Logan Was Trustee of Tech

The Historical Society of Worcester has recently acquired some of the late James Logan's collections including city documents containing history of activities in the city when he was mayor, pamphlets in which are recorded his inaugural addresses, and photographs taken at various times during his life. "The Red Envelope," a red-backed volume of the house-organ he published at various times as general manager of Logan, Swift and Brigham, gives a clear outline of the firm and his connection with it.

A small machine, a model of the Swift's round table envelope machine, the first invention of the Swift brothers, the next development of which was the basis on which the firm of Logan, Swift and Brigham was established is contained in the exhibit.

holds other patents on similar instruments for sound reception.

A former instructor in the department, Mr. Richard Alexander Beth, '27, in writing to a few of his friends on the campus, speaks of the form that fraternity rushing takes in Germany. He states that beer plays a very important part of the "rushing" activities. He further states that he has some difficulty convincing his colleagues that dueling is not a method of settling differences between classmates.

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TECH SHOW WILL BE GIVEN ON APRIL 17

Many Plays Have Been Reviewed

At a recent meeting of Masque it was decided to hold the annual Tech Show on the evening of April 17. The committee in charge consisting of "Al" Weissinger, Frank Green and "Red" Newbold, has been at work considering an appropriate play for the affair. They have been receiving and reviewing many plays for the past week but have not as yet decided upon anything definite.

The Junior Prom comes the following night and these two events coming together offer a very appropriate time for Fraternity House Parties and no doubt several houses on the Hill will take the occasion to entertain guests. This year it was not felt advisable to run the Tech Show two nights and so after considerable debating the committee decided that this affair should come the night before the Prom.

Last year the play was held two nights and it was very well attended. This year a packed house is expected and so an unusual amount of effort is being put into selecting a play.

DR. HOCKING'S SPEECH

(Continued from Page 3, Col. 5)

and he said to me, 'Are you interested in music?' I said I was and he played to me for a while, and after we got on real good terms he said: 'You know you have got to look at things from the point of view of other men. You may be right, he may be wrong, but as long as you are working together you must not let him know your feelings. Now you let me tend to Burgess.' He had done this in such a way I saw I had been acting contrary to the morale of that group. The kind of correction Lee handed out to me has been an ideal way of holding the morale together. He went at it in such a way that I kept my respect for him and it kept Burgess and me on friendly terms and the morale of the organization was saved. I recovered that loyalty I was beginning to lose toward my fellow workers. That is an example of horizontal loyalty. Give more than you expect to get. Every man has his self-interest and is a mixture of interest and his own interests. Let the man know you are looking out for him and he will not be so anxious about looking out for himself. As for that, the old moral holds good that as you give you will receive hundred-fold in return."

MAGAZINE NOVEL CONTEST OFFERS \$150. PRIZE

The Novel Magazine Corporation of New York City has recently offered a prize of \$150 to the writer of the best short story suitable for the readers of its newest magazine, "Brief Stories." This company is keenly sympathetic with the efforts of writers to break into print; to get started on the lucrative path of fiction-writing.

Stories to be eligible, must fit the following specifications:

1. They must be stories of adventure (either land or sea or air) suited to the policy of this magazine.
2. They must not exceed 5,000 words in length.
3. They must be written by men or women who have had no more than three stories published in a magazine or newspaper of national prominence.
4. Stories, to be eligible, must be received at the publication offices not later than the first of the second month preceding publication date; that is, for the March issue, not later than January 1st. Address: Student's Prize Story Award, Brief Stories Magazine, 381 Fourth Avenue, New York, N. Y.

TECH WINS OVER WHITINS

(Continued from Page 1, Col. 5)

cessive goals. For the rest of the game Tech held the upper hand although at times the margin was very slight.

Johnny Smith, a Freshman, took the scoring honors with a total of ten points. His passing game was steady, and he seemed to have no trouble in sinking baskets from difficult places on the floor. At the half the score was tie at 13. Both teams played hard during the last quarter, but Tech kept the lead. Capt. Bill Graham, whose knee has been troubling him again, played the last few minutes of the game. He took Smith's place at center while Smith replaced Bill Cullen at right forward. A few seconds after the tap, Graham made a pretty shot which swished the net for two more.

In the preliminary game the Tech seconds were defeated, 23-13. Davidson was high scorer with ten points, while Hammer scored eight of the points made by the Engineers.

The next issue
of
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will be on
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